

INTERNATIONAL SEARCH REPORT

Inte Application No
PC 03/50692

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G02B1/11 G02B5/08 C03C17/25 C03C17/245 C03C17/34

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G02B C03C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------|
| X | EP 1 040 963 A (NIPPON SHEET GLASS CO LTD) 4 October 2000 (2000-10-04) cited in the application | 1-15, 19 |
| Y | paragraphs '0016!-'0022!, '0023!, '0024!-'0027!, '0066!, '0038!-'0041!; figures 1-3; table 1 | 15-18 |
| A | US 5 745 291 A (JENKINSON TIMOTHY) 28 April 1998 (1998-04-28) column 3, line 9 -column 4, line 21 | 1-19 |
| X | GB 2 291 653 A (GLAVERBEL) 31 January 1996 (1996-01-31) page 1, line 1-5 page 3, line 1-32 page 4, line 15-17 | 1-3, 7, 10 |
| Y | page 6, line 1-9 page 9, line 7-13; example 7; table 3 | 15-18 |
| | --- -/-- | |

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

19 February 2004

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02/03/2004

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|---------------------------|
| X | WO 97 10186 A (BOIRE PHILIPPE ; TALPAERT XAVIER (FR); SAINT GOBAIN VITRAGE (FR)) 20 March 1997 (1997-03-20) | 1-3, 7, 11 |
| Y | page 1, line 20-22 page 2, line 9 - page 3, line 24 page 8, line 13-21 page 10, line 23-27 ---- | 15-18 |
| X | EP 0 901 991 A (CENTRAL GLASS CO LTD) 17 March 1999 (1999-03-17) paragraphs '0001!', '0015!', '0018!', '0026!', '0027!; claims 6, 7; figure 1 ---- | 1, 3, 4, 7, 10, 11, 14 |
| X | US 2002/045073 A1 (FINLEY JAMES J) 18 April 2002 (2002-04-18) | 1 |
| Y | paragraphs '0007!', '0012!', '0025!'-'0031!', '0034!', '0035!; '0044!', '0101!; figure 1 ---- | 15-18 |
| A | PATENT ABSTRACTS OF JAPAN vol. 2000, no. 08, 6 October 2000 (2000-10-06) & JP 2000 131513 A (TOYOTA MOTOR CORP), 12 May 2000 (2000-05-12) abstract; figures 1, 5, 6 paragraphs '0021!', '0022!; figure 2 ----- | 1-18 |

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INTERNATIONAL SEARCH REPORT

Information on patent family members

 International Application No
 P 03/50692

| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
|---|---|---------------------|----------------------------|---------------------|
| EP 1040963 | A | 04-10-2000 | JP 2000347013 A | 15-12-2000 |
| | | | EP 1040963 A2 | 04-10-2000 |
| | | | US 6312131 B1 | 06-11-2001 |
| US 5745291 | A | 28-04-1998 | AT 145195 T | 15-11-1996 |
| | | | AU 4152993 A | 13-01-1994 |
| | | | BR 9302815 A | 22-02-1994 |
| | | | CA 2099519 A1 | 12-01-1994 |
| | | | CN 1081657 A ,B | 09-02-1994 |
| | | | CZ 9301318 A3 | 16-02-1994 |
| | | | DE 69305936 D1 | 19-12-1996 |
| | | | DE 69305936 T2 | 17-04-1997 |
| | | | DK 583871 T3 | 21-04-1997 |
| | | | EG 20125 A | 31-07-1997 |
| | | | EP 0583871 A1 | 23-02-1994 |
| | | | ES 2096864 T3 | 16-03-1997 |
| | | | FI 933164 A | 12-01-1994 |
| | | | GB 2268509 A ,B | 12-01-1994 |
| | | | GR 3022231 T3 | 30-04-1997 |
| | | | HU 70362 A2 | 30-10-1995 |
| | | | IL 106202 A | 31-01-1996 |
| | | | IN 183341 A1 | 27-11-1999 |
| | | | JP 3434320 B2 | 04-08-2003 |
| | | | JP 6183787 A | 05-07-1994 |
| | | | MX 9304101 A1 | 31-01-1994 |
| | | | NZ 248032 A | 24-02-1995 |
| | | | PL 299635 A1 | 21-03-1994 |
| | | | RU 2120919 C1 | 27-10-1998 |
| | | | TR 26801 A | 08-08-1994 |
| | | | US 5505989 A | 09-04-1996 |
| | | | US 5580364 A | 03-12-1996 |
| | | | ZA 9304664 A | 25-01-1994 |
| | | | US 5938958 A | 17-08-1999 |
| | | | US 5749931 A | 12-05-1998 |
| | | | US 5525406 A | 11-06-1996 |
| | | | US 5751484 A | 12-05-1998 |
| GB 2291653 | A | 31-01-1996 | AT 408980 B | 25-04-2002 |
| | | | AT 125095 A | 15-09-2001 |
| | | | BE 1008681 A3 | 02-07-1996 |
| | | | CH 690302 A5 | 14-07-2000 |
| | | | CZ 9501924 A3 | 12-06-1996 |
| | | | DE 19526223 A1 | 01-02-1996 |
| | | | ES 2123387 A1 | 01-01-1999 |
| | | | FR 2722775 A1 | 26-01-1996 |
| | | | HU 74415 A2 | 30-12-1996 |
| | | | IL 114700 A | 17-02-2000 |
| | | | IT 1276499 B1 | 31-10-1997 |
| | | | LU 88640 A1 | 01-12-1995 |
| | | | NL 1000882 C2 | 15-04-1996 |
| | | | NL 1000882 A1 | 25-01-1996 |
| | | | TR 970054 A2 | 21-02-1997 |
| WO 9710186 | A | 20-03-1997 | FR 2738813 A1 | 21-03-1997 |
| | | | AT 210097 T | 15-12-2001 |
| | | | AU 7087596 A | 01-04-1997 |
| | | | BR 9610604 A | 17-02-1999 |
| | | | CZ 9800784 A3 | 12-08-1998 |

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
P 03/50692

| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
|---|----|---------------------|----------------------------|---------------------|
| WO 9710186 | A | | DE 29624343 U1 | 29-05-2002 |
| | | | DE 29624395 U1 | 16-01-2003 |
| | | | DE 69617705 D1 | 17-01-2002 |
| | | | DE 69617705 T2 | 08-08-2002 |
| | | | DK 850204 T3 | 02-04-2002 |
| | | | EP 1132351 A1 | 12-09-2001 |
| | | | EP 0850204 A1 | 01-07-1998 |
| | | | ES 2168506 T3 | 16-06-2002 |
| | | | WO 9710186 A1 | 20-03-1997 |
| | | | JP 11512337 T | 26-10-1999 |
| | | | PL 325527 A1 | 03-08-1998 |
| | | | PT 850204 T | 31-05-2002 |
| | | | TR 9800459 T1 | 22-06-1998 |
| | | | US 2002071956 A1 | 13-06-2002 |
| | | | US 6103363 A | 15-08-2000 |
| | | | US 2002110638 A1 | 15-08-2002 |
| | | | US 2002136934 A1 | 26-09-2002 |
| | | | US 2002119307 A1 | 29-08-2002 |
| | | | US 2002150681 A1 | 17-10-2002 |
| | | | US 2003207028 A1 | 06-11-2003 |
| | | | US 6326079 B1 | 04-12-2001 |
| | | | US 2002028361 A1 | 07-03-2002 |
| EP 0901991 | A | 17-03-1999 | JP 11079788 A | 23-03-1999 |
| | | | EP 0901991 A2 | 17-03-1999 |
| US 2002045073 | A1 | 18-04-2002 | AU 3922502 A | 27-05-2002 |
| | | | CA 2417936 A1 | 23-05-2002 |
| | | | EP 1315682 A2 | 04-06-2003 |
| | | | WO 0240417 A2 | 23-05-2002 |
| | | | US 2003235720 A1 | 25-12-2003 |
| JP 2000131513 | A | 12-05-2000 | NONE | |

Form PCT/ISA/210 (patent family annex) (July 1992)

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